Applicant: Keshavarzi et al. Attorney's Docket No.: 10559-678001 / P13211

Serial No.: 10/024,467

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## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

## 1. - 8. (Canceled)

- 9. (Previously Presented) The apparatus of claim 10 wherein the radiation sensor forms part of a radiation-measuring circuit and the adjustable voltage source is integrated into the radiation-measuring circuit.
- 10. (Currently Amended) An apparatus comprising:

a radiation sensor with a threshold voltage;

an adjustable voltage source coupled to the radiation sensor to change [[the]]  $\underline{a}$  threshold level of the radiation sensor;

a current mirror; and

an output load including a gate terminal and a drain terminal,

wherein the radiation sensor has a source terminal coupled to a first side of the current mirror through a resistive element and coupled to the gate terminal of the output <del>load;</del> load and the drain terminal of the output load coupled to a second side of the current mirror.

- 11. (Original) The apparatus of claim 10 wherein a state of the radiation sensor controls a state of the output load.
- 12. (Original) The apparatus of claim 10 wherein the resistive element includes a transistor.
- 13. (Original) The apparatus of claim 10 wherein the resistive element includes a resistor.

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14. (Original) The apparatus of claim 10 wherein the current mirror includes pMOS transistors and each of the radiation sensor, the resistive element and the output load includes an nMOS transistor.

- 15. (Original) The apparatus of claim 10 wherein the current mirror includes nMOS transistors and each of the radiation sensor, the resistive element, and the output load includes a pMOS transistor.
- 16. (Withdrawn) An apparatus comprising:
  - a first transistor to sense radiation;
- a load transistor having a gate coupled to an output of the first transistor and having an output to provide a signal whose digital state depends on a state of the first transistor; and a current mirror coupled to the first transistor and the load transistor.
- 17. (Withdrawn) The apparatus of claim 16 comprising an adjustable voltage source coupled to the first transistor to adjust a threshold voltage level of the first transistor.
- 18. (Withdrawn) The apparatus of claim 17 wherein the first transistor forms part of a radiation-measuring circuit and the adjustable voltage source is external to the radiation-measuring circuit.
- 19. (Withdrawn) The apparatus of claim 17 wherein the first transistor forms part of a radiation-measuring circuit and the adjustable voltage source is integrated into the radiation-measuring circuit.
- 20. (Withdrawn) The apparatus of claim 16 including a resistive element coupled to the output of the first transistor and a first side of the current mirror.
- 21. (Withdrawn) The apparatus of claim 20 wherein the resistive element includes a transistor.

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22. (Withdrawn) The apparatus of claim 20 wherein the resistive element includes a resistor.

- 23. (Withdrawn) The apparatus of claim 20 wherein the current mirror includes pMOS transistors and each of the radiation sensor, the resistive element and the output load includes an nMOS transistor.
- 24. (Withdrawn) The apparatus of claim 20 wherein the current mirror includes nMOS transistors and each of the radiation sensor, the resistive element, and the output load includes a pMOS transistor.

25. – 26. (Canceled)

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